



HOBBS OCD
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EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Mamba 30 State Com

#506H

OH

Design: OH

Final PVA Report

27 February, 2019



Final PVA Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #508H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 33' @ 3586.0usft (Nabors X-15)
Site:	Mamba 30 State Com	MD Reference:	KB = 33' @ 3586.0usft (Nabors X-15)
Well:	#508H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Project	Lea County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site						Mamba 30 State Com					
Site Position:				Northing:		430,807.00 usft		Latitude:		32° 10' 56.143 N	
From:		Map		Easting:		767,053.00 usft		Longitude:		103° 38' 13.509 W	
Position Uncertainty:		0.0 usft		Slot Radius:		13-3/16 "		Grid Convergence:		0.39 °	

Well		#508H				
Well Position	+N-S	0.0 usft	Northing:	430,924.00 usft	Latitude:	32° 10' 57.546 N
	+E-W	0.0 usft	Easting:	763,376.00 usft	Longitude:	103° 36' 56.283 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,553.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	9/19/2018	8.83	60.00	47,778.74986267

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/S (usft)	+E/W (usft)	Direction (°)	
	0.0	0.0	0.0	348.02	

Survey Program	Date 2/27/2019				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
246.0	15,959.0	Learn MWD #1 (OH)	MWD	OWSG MWD - Standard	



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Well:	#506H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	EW (usft)	DLeg (°/100usft)	Bulid (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0
246.0	0.50	204.10	246.0	-1.0	-0.4	0.20	0.20	0.00	-1.1	0.0	
434.0	1.00	222.40	434.0	-2.9	-1.9	0.29	0.27	9.73	-3.4	0.6	
608.0	0.80	219.20	608.0	-5.0	-3.7	0.12	-0.11	-1.84	-6.2	0.3	
796.0	0.60	232.90	795.9	-6.6	-5.3	0.14	-0.11	7.29	-8.2	2.1	
984.0	1.80	226.20	983.9	-9.0	-8.0	0.54	0.53	-3.56	-12.0	1.0	
1,171.0	1.30	252.80	1,170.8	-11.5	-11.9	0.39	-0.16	14.22	-9.6	7.1	
1,351.0	3.10	262.80	1,350.7	-12.7	-18.7	1.02	1.00	5.56	0.8	4.9	
1,539.0	8.00	284.60	1,537.8	-7.9	-35.6	2.98	2.61	16.81	6.2	-14.5	
1,726.0	15.80	262.30	1,720.8	-5.8	-72.8	5.33	4.17	-17.27	12.3	-24.8	
1,914.0	14.00	245.40	1,902.6	-18.8	-118.8	2.49	-0.96	-8.99	8.7	-25.7	
2,101.0	13.80	243.40	2,084.1	-38.2	-159.3	0.28	-0.11	-1.07	1.6	-22.9	
2,289.0	13.10	244.20	2,287.0	-57.5	-188.6	0.39	-0.37	0.43	-5.2	-19.8	
2,476.0	12.30	244.90	2,449.4	-75.1	-235.7	0.44	-0.43	0.37	-9.5	-17.1	
2,665.0	12.00	243.80	2,634.1	-92.4	-271.5	0.20	-0.16	-0.58	-11.4	-14.6	
2,820.0	11.50	244.20	2,883.8	-115.1	-318.2	0.20	-0.20	0.16	-12.8	-10.5	
3,041.0	12.00	244.20	3,002.3	-125.8	-340.4	0.41	0.41	0.00	-13.4	-8.7	
3,228.0	13.00	247.50	3,184.8	-142.4	-377.3	0.66	0.53	1.76	-17.1	-6.2	
3,415.0	13.30	249.10	3,366.9	-158.1	-416.9	0.25	0.16	0.86	-22.7	-5.5	
3,603.0	12.20	249.40	3,550.3	-172.8	-455.7	0.59	-0.59	0.16	-26.8	-5.9	
3,791.0	10.80	249.60	3,734.5	-185.9	-490.8	0.74	-0.74	0.11	-26.8	-6.4	
3,979.0	10.50	249.10	3,919.3	-198.2	-523.3	0.17	-0.16	-0.27	-24.0	-7.2	
4,167.0	14.00	242.00	4,103.0	-215.0	-559.4	2.02	1.86	-3.78	-25.5	-8.0	
4,354.0	11.70	239.80	4,285.3	-235.1	-595.7	1.26	-1.23	-1.18	-30.1	-4.1	
4,540.0	11.00	244.70	4,467.6	-252.2	-628.1	0.64	-0.38	2.63	-29.8	2.4	
4,730.0	10.60	242.80	4,654.3	-267.9	-660.0	0.26	-0.21	-0.95	-27.8	4.6	
4,875.0	9.20	237.80	4,797.1	-280.1	-681.7	1.14	-0.97	-3.52	-24.5	6.4	



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Site: Mamba 30 State Com			MD Reference:			KB = 33' @ 3586.0usft (Nabors X-15)		
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Wellbore: OH			Survey Calculation Method:			Minimum Curvature		
Design: OH			Database:			EDM 5000.14		

Survey											
MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	OLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
5,011.0	8.40	237.50	4,931.5	-291.3	-699.3	0.59	-0.59	-0.22	-18.6	11.4	
5,201.0	11.00	247.70	5,118.8	-305.6	-727.8	1.64	1.37	5.37	-10.2	17.4	
5,389.0	12.70	247.50	5,302.8	-320.3	-763.5	0.90	0.90	-0.11	-11.4	18.0	
5,578.0	12.30	245.20	5,487.3	-336.7	-800.9	0.34	-0.21	-1.22	-15.4	18.8	
5,765.0	13.60	246.80	5,669.5	-353.7	-839.2	0.72	0.70	0.86	-19.7	20.9	
5,952.0	13.50	249.80	5,851.3	-369.9	-879.9	0.38	-0.05	1.60	-25.3	22.2	
6,139.0	12.20	245.70	6,033.7	-385.6	-918.4	0.85	-0.70	-2.19	-31.2	20.6	
6,328.0	11.20	262.60	6,218.8	-396.2	-954.8	1.88	-0.53	8.94	-24.9	25.3	
6,517.0	11.40	262.60	6,404.1	-401.0	-991.5	0.11	0.11	0.00	-25.4	16.1	
6,703.0	7.80	261.90	6,587.5	-405.1	-1,022.3	1.94	-1.94	-0.38	-20.4	7.0	
6,891.0	6.40	249.10	6,774.1	-410.6	-1,044.7	1.12	-0.74	-6.81	-10.1	-0.8	
7,079.0	0.40	338.20	6,961.7	-413.8	-1,054.7	3.41	-3.18	47.39	-1.7	-1.9	
7,267.0	1.20	348.90	7,149.6	-411.2	-1,055.4	0.43	0.43	5.69	-6.4	-11.4	
7,454.0	1.90	242.20	7,336.6	-410.8	-1,058.5	1.35	0.37	-57.06	10.9	-4.7	
7,641.0	1.80	241.70	7,523.5	-413.7	-1,064.0	0.01	0.00	-0.27	4.7	-4.6	
7,830.0	1.30	43.90	7,712.5	-413.6	-1,065.2	1.67	-0.32	85.82	-5.1	3.9	
8,017.0	1.40	41.80	7,899.4	-410.4	-1,062.2	0.06	0.05	-1.12	-9.6	3.7	
8,203.0	1.10	57.30	8,085.4	-407.7	-1,059.2	0.24	-0.16	8.33	-12.2	6.7	
8,391.0	0.90	58.40	8,273.3	-406.0	-1,056.4	0.11	-0.11	0.59	-15.4	7.0	
8,579.0	0.40	73.30	8,461.3	-405.0	-1,054.6	0.28	-0.27	7.93	-15.2	11.1	
8,767.0	0.30	161.50	8,649.3	-405.3	-1,053.8	0.28	-0.05	46.91	10.1	16.2	
8,956.0	0.50	200.90	8,838.3	-406.5	-1,053.9	0.17	0.11	20.85	16.9	6.4	
9,144.0	1.00	226.20	9,026.3	-408.4	-1,055.4	0.31	0.27	13.46	15.6	-1.1	
9,332.0	1.00	223.10	9,214.3	-410.8	-1,057.7	0.03	0.00	-1.65	12.3	-0.3	
9,520.0	1.20	210.80	9,402.2	-413.7	-1,059.8	0.16	0.11	-6.54	8.6	2.0	
9,707.0	2.10	251.50	9,589.2	-416.4	-1,064.1	0.76	0.48	21.76	2.9	-2.8	
9,895.0	2.40	277.60	9,777.0	-417.0	-1,071.2	0.56	0.16	13.88	-5.7	-2.3	



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10,082.0	1.60	289.20	9,963.9	-415.6	-1,077.6	0.48	-0.43	6.20	-12.5	-0.3	
10,270.0	2.10	320.80	10,151.8	-412.1	-1,082.2	0.59	0.27	16.81	-16.5	7.7	
10,457.0	1.80	350.00	10,338.7	-406.5	-1,084.9	0.55	-0.16	15.61	-16.5	16.4	
10,541.0	1.80	344.20	10,422.7	-404.0	-1,085.5	0.22	0.00	-6.90	-20.8	14.5	
10,630.0	6.89	15.79	10,511.4	-397.5	-1,084.4	6.11	5.72	35.48	-16.5	24.0	
KOP (Mamba 30 State #506H)											
10,655.0	8.40	17.60	10,536.2	-394.3	-1,083.5	6.11	6.04	7.26	-18.6	24.5	
10,702.0	13.70	21.30	10,582.3	-385.8	-1,080.4	11.37	11.28	7.87	-22.3	24.8	
10,749.0	17.10	8.10	10,627.6	-373.8	-1,077.4	10.35	7.23	-28.09	-31.8	17.8	
10,796.0	23.60	0.90	10,671.7	-357.5	-1,076.3	14.80	13.83	-15.32	-38.3	14.3	
10,843.0	30.40	3.70	10,713.5	-338.2	-1,075.4	14.72	14.47	5.96	-43.5	17.7	
10,890.0	34.30	9.30	10,753.2	-311.3	-1,072.5	10.46	8.30	11.91	-48.0	22.0	
10,936.0	38.70	10.70	10,790.2	-284.4	-1,067.7	9.73	9.57	3.04	-53.0	21.8	
10,983.0	45.50	10.50	10,825.0	-253.4	-1,061.9	14.47	14.47	-0.43	-59.1	20.0	
11,030.0	48.80	9.30	10,857.0	-219.5	-1,056.0	7.27	7.02	-2.55	-65.3	17.5	
11,076.3	53.63	9.69	10,886.0	-183.9	-1,050.0	10.45	10.43	0.85	-70.0	16.4	
FTP (Mamba 30 State #506H)											
11,077.0	53.70	9.70	10,886.4	-183.3	-1,049.9	10.45	10.43	0.80	-70.1	16.3	
11,124.0	54.80	9.50	10,913.9	-145.7	-1,043.6	2.37	2.34	-0.43	-73.1	14.5	
11,171.0	57.50	9.10	10,940.0	-107.2	-1,037.3	5.79	5.74	-0.85	-73.3	12.7	
11,217.0	60.90	7.20	10,963.6	-68.1	-1,031.7	8.20	7.39	-4.13	-71.7	10.9	
11,264.0	62.20	6.70	10,986.0	-27.1	-1,026.7	2.92	2.77	-1.06	-67.5	11.0	
11,311.0	68.00	4.40	11,006.5	15.0	-1,022.6	9.21	8.09	-4.89	-61.2	11.8	
11,325.7	67.26	3.90	11,012.3	28.5	-1,021.6	9.15	8.60	-3.38	-59.0	12.5	
50° HL Crossing, MD:11325.7, TVD:11012.3, N/S:28.5, EW:-1021.6, INC:67.26											
11,347.0	69.10	3.20	11,020.3	48.2	-1,020.4	9.15	8.62	-3.30	-55.6	13.9	
11,394.0	72.40	1.80	11,035.8	92.5	-1,018.4	7.49	7.02	-2.77	-47.1	17.9	



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11,452.0	74.10	3.00	11,052.5	148.0	-1,016.1	3.45	2.83	1.80	-33.3	23.2	
11,498.0	75.70	5.30	11,084.5	192.3	-1,012.9	5.95	3.48	5.00	-21.2	25.2	
11,545.0	77.50	5.30	11,075.3	237.8	-1,008.6	3.83	3.83	0.00	-10.3	25.1	
11,592.0	77.60	4.60	11,085.5	283.5	-1,004.7	1.47	0.21	-1.49	-0.3	24.2	
11,639.0	78.90	3.20	11,095.1	329.4	-1,001.5	4.02	2.77	-2.98	9.0	23.2	
11,687.0	83.70	1.40	11,102.3	378.8	-999.6	10.66	10.00	-3.75	16.3	22.3	
11,780.0	90.70	3.00	11,106.9	469.6	-996.1	7.72	7.53	1.72	20.9	18.4	
11,875.0	93.40	2.60	11,103.5	564.4	-991.4	2.87	2.84	-0.42	17.5	13.3	
11,969.0	93.30	1.70	11,098.0	658.2	-987.9	0.98	-0.11	-0.96	12.0	9.3	
12,063.0	90.20	2.50	11,095.1	752.1	-984.5	3.41	-3.30	0.85	9.1	5.3	
12,158.0	89.90	1.40	11,095.0	847.0	-981.2	1.20	-0.32	-1.16	9.0	1.6	
12,252.0	89.90	0.90	11,095.2	941.0	-979.4	0.53	0.00	-0.53	9.2	-0.7	
12,348.0	90.70	0.50	11,094.7	1,035.0	-978.2	0.95	0.85	-0.43	8.7	-2.4	
12,441.0	91.40	0.50	11,092.9	1,130.0	-977.4	0.74	0.74	0.00	7.0	-3.7	
12,535.0	91.90	0.30	11,090.2	1,223.9	-976.7	0.57	0.53	-0.21	4.2	-4.8	
12,629.0	91.60	0.50	11,087.4	1,317.9	-976.1	0.38	-0.32	0.21	1.4	-5.9	
12,724.0	91.50	0.50	11,084.8	1,412.8	-975.2	0.11	-0.11	0.00	-1.2	-7.2	
12,818.0	91.50	0.50	11,082.3	1,508.8	-974.4	0.00	0.00	0.00	-3.7	-8.5	
12,913.0	89.30	1.40	11,081.7	1,601.8	-972.8	2.50	-2.32	0.95	-4.3	-10.6	
13,006.0	89.10	1.20	11,083.0	1,694.7	-970.7	0.30	-0.22	-0.22	-3.0	-13.2	
13,100.0	89.10	0.00	11,084.4	1,788.7	-969.8	1.28	0.00	-1.28	-1.6	-14.6	
13,147.3	90.10	359.30	11,084.8	1,836.1	-970.0	2.57	2.11	-1.47	-1.2	-14.6	
TGT 1 (Mamba 30 State #506H)											
13,195.0	91.10	358.60	11,084.3	1,883.7	-970.9	2.57	2.11	-1.47	-1.7	-13.9	
13,289.0	91.00	358.20	11,082.6	1,977.7	-973.5	0.44	-0.11	-0.43	-3.3	-11.8	
13,383.0	90.50	357.70	11,081.3	2,071.6	-976.9	0.75	-0.53	-0.53	-4.4	-8.9	
13,477.0	91.30	358.20	11,079.8	2,165.5	-980.3	1.00	0.85	0.53	-5.8	-6.0	



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Wellbore: OH		Survey Calculation Method: Minimum Curvature	
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Survey											
MD (usft)	Inc (")	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	EW (usft)	DLeg ("/100usft)	Build ("/100usft)	Turn ("/100usft)	High to Plan (usft)	Right to Plan (usft)	
13,570.0	90.70	358.20	11,078.2	2,258.5	-983.2	0.65	-0.65	0.00	-7.3	-3.5	
13,864.0	90.30	357.90	11,077.4	2,352.4	-986.4	0.53	-0.43	-0.32	-8.0	-0.8	
13,758.0	91.60	358.90	11,075.8	2,446.3	-989.0	1.74	1.38	1.06	-9.5	1.3	
13,853.0	90.80	358.40	11,073.9	2,541.3	-991.2	0.99	-0.84	-0.53	-11.4	3.1	
13,847.0	90.70	358.40	11,072.6	2,635.3	-993.9	0.11	-0.11	0.00	-12.5	5.3	
14,040.0	90.40	358.40	11,071.7	2,728.2	-996.5	0.32	-0.32	0.00	-13.3	7.4	
14,134.0	91.10	359.60	11,070.5	2,822.2	-998.1	1.48	0.74	1.28	-14.4	8.6	
14,229.0	90.70	359.10	11,069.0	2,917.2	-999.2	0.67	-0.42	-0.53	-15.8	9.2	
14,323.0	91.70	0.90	11,067.0	3,011.1	-999.2	2.19	1.06	1.81	-17.7	8.7	
14,418.0	91.10	1.40	11,064.7	3,106.1	-997.3	0.82	-0.63	0.53	-19.9	6.3	
14,512.0	91.20	1.00	11,062.8	3,200.1	-995.3	0.44	0.11	-0.43	-21.7	3.9	
14,606.0	91.20	1.40	11,060.9	3,294.0	-993.3	0.43	0.00	0.43	-23.5	1.4	
14,700.0	90.60	0.90	11,059.4	3,388.0	-991.5	0.83	-0.64	-0.53	-24.9	-0.9	
14,794.0	90.40	0.90	11,058.6	3,482.0	-990.0	0.21	-0.21	0.00	-25.6	-2.9	
14,888.0	89.90	0.50	11,058.3	3,576.0	-988.8	0.68	-0.53	-0.43	-25.8	-4.5	
14,965.5	89.66	0.34	11,058.6	3,653.5	-988.3	0.38	-0.32	-0.21	-25.4	-5.4	
TOT 2 (Mamba 30 State #506H)											
14,883.0	89.60	0.30	11,058.7	3,671.0	-988.2	0.38	-0.32	-0.21	-25.2	-5.6	
15,077.0	89.40	359.80	11,059.6	3,765.0	-988.1	0.57	-0.21	-0.53	-24.0	-6.2	
15,169.0	90.70	0.20	11,059.5	3,857.0	-988.1	1.48	1.41	0.43	-23.8	-6.6	
15,264.0	90.10	359.60	11,058.8	3,952.0	-988.2	0.89	-0.63	-0.63	-24.1	-6.9	
15,358.0	89.10	359.30	11,059.5	4,045.9	-989.2	1.11	-1.06	-0.32	-23.0	-6.5	
15,452.0	88.50	359.10	11,061.4	4,139.9	-990.5	0.67	-0.64	-0.21	-20.7	-5.7	
15,547.0	89.70	0.00	11,062.9	4,234.9	-991.2	1.58	1.26	0.95	-18.9	-5.4	
15,641.0	89.20	359.60	11,063.8	4,328.9	-991.5	0.68	-0.53	-0.43	-17.6	-5.5	
15,736.0	88.70	358.90	11,065.6	4,423.9	-992.8	0.91	-0.53	-0.74	-15.5	-4.8	
15,830.0	88.20	358.90	11,068.1	4,517.8	-994.6	0.53	-0.53	0.00	-12.6	-3.4	



Final PVA Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #506H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 33' @ 3586.0usft (Nabors X-15)
Site:	Mamba 30 State Corn	MD Reference:	KB = 33' @ 3586.0usft (Nabors X-15)
Well:	#506H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
15,903.0	87.50	358.60	11,070.9	4,590.7	-996.2	1.04	-0.98	-0.41	-9.6	-2.2
Final MWD Survey (MD=15903.0)										
15,959.0	87.50	358.60	11,073.3	4,646.7	-997.5	0.00	0.00	0.00	-8.9	-1.1
Final Projection to Bit (MD=15959.0) - PBHL (Mamba 30 State #506H)										

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
11,325.7	11,012.3	28.5	-1,021.6	50' HL Crossing, MD:11325.7', TVD:11012.3', N/S:28.5', E/W:-1021.6', INC:67.2'
15,903.0	11,070.9	4,590.7	-996.2	Final MWD Survey (MD=15903.0)
15,959.0	11,073.3	4,646.7	-997.5	Final Projection to Bit (MD=15959.0)

Checked By: _____	Approved By: _____	Date: _____
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Lea County, NM (NAD 83 NME)

Mamba 30 State Com #506H

Nabors X-15

Plan #1

PROJECT DETAILS: Lea County, NM (NAD 83 NME)

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

WELL DETAILS: #506H

KB = 33' @ 3588.0usft (Nabors X-15) 3553.0
Northing 430924.00 Easting 763378.00 Latitude 32° 10' 57.548 N Longitude 103° 58' 58.283 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	
3	1574.8	11.50	248.49	1570.9	-21.1	-53.5	2.00	248.49	-9.5	
4	6746.7	11.50	248.49	6639.1	-398.9	-1012.4	0.00	0.00	-180.1	
5	7321.4	0.00	0.00	7210.0	-420.0	-1065.9	2.00	180.00	-189.6	
6	10624.4	0.00	0.00	10513.0	-420.0	-1065.9	0.00	0.00	-189.6	KOP (Mamba 30 State #506H)
7	11524.4	90.00	7.32	11086.0	148.3	-992.9	10.00	7.32	351.1	
8	11778.1	90.00	359.71	11086.0	401.3	-977.4	3.00	-90.01	595.4	
9	13212.7	90.00	359.71	11086.0	1835.9	-984.6	0.00	0.00	2000.3	TGT 1 (Mamba 30 State #506H)
10	13216.0	90.06	359.71	11086.0	1839.1	-984.6	2.00	3.13	2003.5	
11	15030.3	90.06	359.71	11084.0	3653.4	-993.7	0.00	0.00	3780.1	TGT 2 (Mamba 30 State #506H)
12	15038.0	90.22	359.71	11084.0	3661.1	-993.7	2.00	0.00	3787.7	
13	16084.9	90.22	359.71	11080.0	4708.0	-999.0	0.00	0.00	4812.8	PBHL (Mamba 30 State #506H)

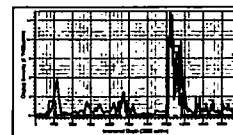
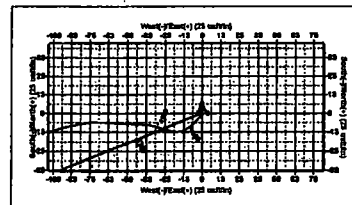
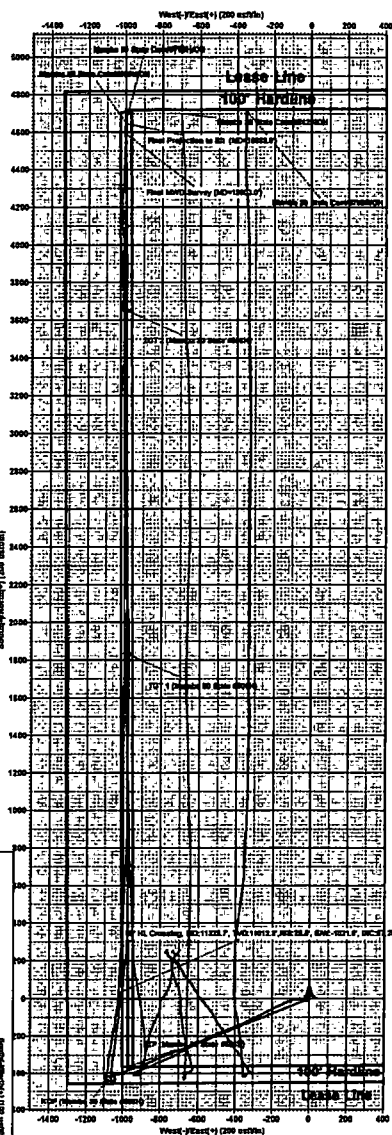
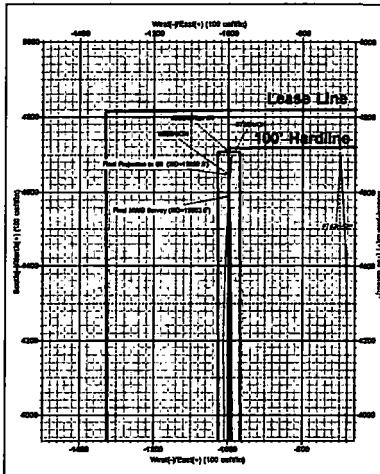
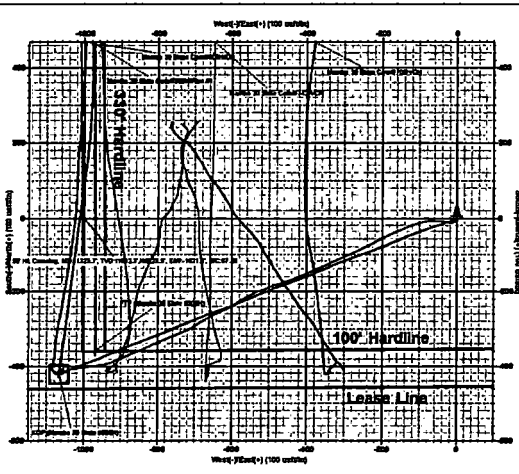
To convert a Magnetic Direction to a Grid Direction, Add 9.45°
To convert a Magnetic Direction to a True Direction, Add 6.83° East
To convert a True Direction to a Grid Direction, Subtract 0.38°

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP (Mamba 30 State #506H)	10513.0	-420.0	-1065.9	430504.00	762310.10
TGT 1 (Mamba 30 State #506H)	11086.0	1835.9	-984.6	432759.90	762391.29
TGT 2 (Mamba 30 State #506H)	11084.0	3653.4	-993.7	434077.40	762382.32
PBHL (Mamba 30 State #506H)	11080.0	4708.0	-999.0	435832.02	762377.05
FTP (Mamba 30 State #506H)	11088.0	-380.0	-470.0	430564.00	762406.00



Lea County, NM (NAD 83 NME)
Mamba 30 State Com #506H
Nabors X-15
Plan #1
10/10/2013